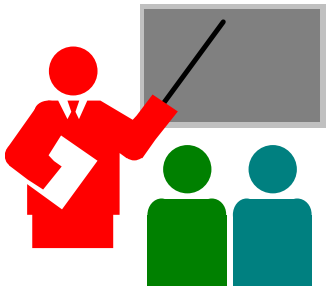
Developing Quality

Curricula and Assessments

For the

Show-Me Standards



Too often, when we talk about curriculum, we focus on only two things:

- **What is covered**
- **How it is delivered**

A quality curriculum contains much more than these two topics.

INTEGRATED STANDARDS MATRIX

Curriculum Alignment	Curriculum Implementation	Professional Development	Assessment
Curriculum guides are not consistently cross-referenced to the Show-Me Standards or cross-references not appropriate.	Curriculum use not affirmed by teachers, and teachers have had little involvement with developing or modifying the curriculum. Textbooks often used as curriculum.	Professional development related to curriculum and instruction is limited. Participation in such activities is on an individual basis. Most such activities are offered outside the district.	Assessment results are not often used. Standardized assessment results may be reviewed. But are not used or used only to a limited degree to improve curriculum and instruction
Cross-references to the Show-Me Standards are the only evidence of alignment. These cross-references are consistently present and references seem to be appropriate.	Curriculum used primarily as checklist of objectives at beginning of year and/or end of school year to ensure coverage of objectives. Degree to which curriculum is implemented depends on individual teacher.	Participation in curriculum-related or instructional professional activities is on an ad hoc basis (when implementing new programs or responding to new requirement).	Assessment results are reviewed, disaggregated, and distributed to classrooms. Teachers modify instruction for individual students; general strengths and weakness may be identified by grade level or building.
Learner objectives have been aligned and articulated appropriately to the Show-Me Standards, MAP, or the Curriculum Frameworks.	Curriculum used daily/weekly to plan instructional activities and assessment. Some support is available when new curriculum is implemented. There is an expectation that all teachers will be able to show how lessons are connected to curriculum objectives.	Most professional development activities take place in the district and are tied closely to student achievement or CSIP goals. Most staff attends ongoing activities related to curriculum and instruction, and evaluation of these activities is extensive.	Teachers are trained to use assessment data to improve instruction and curriculum. It is expected that standardized test results will be supplemented by a variety of classroom assessments used to monitor the instructional process and measure instructional goals.
Learner objectives are aligned and articulated, and instructional strategies and assessments are internally aligned. Higher-order strategies and assessments are present.	Curriculum is used to plan instruction and assessment. There is a system to ensure teachers use the curriculum and strong support is provided for curriculum implementation.	District can document the relationship between the professional development activities it offers and improvements in student achievement (assessment data).	Teachers are trained to develop appropriate assessments and use these assessments extensively as part of the daily instructional program and to plan future instruction (and curriculum changes).

Curriculum Review Worksheet

This worksheet contains definitions and directions for completing the curriculum chart (6.1) in the Report Writing Form. Basically, the team members look at all curriculum by grade level, and record their observations on the curriculum chart. These observations need to be conducted in a similar manner during each review to ensure consistency and fairness.

REQUIRED CURRICULUM COMPONENTS

Each written curriculum guide must include the following components:

-- a **rationale** which relates the general goals of each subject area and course to the district's mission and philosophy

--a general **description of the content of each subject area at the elementary level and each secondary-level course**

--**general goals for graduates in each subject area**

--**specific, measurable learner objectives** for each course at each grade level

--**alignment** of the measurable learner objectives for each course to the knowledge, skills, and competencies that students need to meet the district's goals and the Show-Me Standards

--**instructional strategies [activities] and specific assessments (including performance-based assessments) for a majority of the learner objectives**

--evidence that individual learner objectives have been **articulated** by grade level/course sequence

--**date of board review and approval** for each curriculum guide

Each box of the curriculum chart is completed by indicating the grade levels at which components are present: K, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12. If the component is present in all elementary curriculum guides, then the grades can be listed K-6 in the elementary section of the response box. If the component is present in elementary and middle school/junior high school, but not at high school, then the responses would be "K-6," "7-8," "None." If, on the other hand, some guides at a grade span have the component and others do not, "Exception" could be written in the response section instead of "K,1,2,4,5." Team members should accept course descriptions contained in a course description booklet, as well as those included in the curriculum guides.

"Exceptions" should be explained below the curriculum chart.

Examples:

1) "All curriculum guides except social studies (grades 11-12) have rationales."

2) "Music and art curriculum guides in grades 7-8 do not include measurable learner objectives. Objectives were listed in these guides, but were not measurable."

The blue "placemat" in the curriculum folder lists the Show-Me Standards that should be cross-referenced to each learner objective. **All learner objectives should be cross-referenced to the Show-Me Standards or the Curriculum Frameworks**, and these cross-references should be **spot-checked** to see if they are appropriate. If most of the spot-checks show learner objectives are related to the cross-referenced Standard/Framework in terms of process or content, then credit should be given for the guides including cross-references.

Graduate goals are in place if: 1) the guides have appropriate cross-references to either the Show-Me Standards or the Curriculum Frameworks; and, 2) if the local board of education has adopted these guides. In this case, it is assumed the Show-Me Standards goals (process and content) have been adopted by the board as graduate goals. Other districts may have identified their own goals for graduates, and the board has adopted these as graduate goals. **Graduate goals must be in place for each core subject area guide** (math, social studies, communication arts, science, music/art, and physical education/health) **and for vocational education guides.**

Measurable learner objectives must be assessable. If learner objectives are listed that are not measurable, but more specific and measurable objectives (such as "performance indicators" or "learner competencies") are also listed, team members should give credit regardless of the terminology used.
Example: "Students will learn all aspects of art appreciation" is not a measurable objective. However, under this objective, a measurable "Performance Indicator" might be present: "Students will create a picture using shading/shadows consistent to a light source."

Examples of instructional activities and assessments must be in place for a majority of the measurable learner objectives at each grade level in the selected subject area. Enough information should be included so that these activities and assessments could be duplicated. It is not sufficient to list generic references such as "quiz" or "teacher observations" for assessments to be counted. Activities should be described so that the reader can understand what instruction is taking place in the classroom. It is not sufficient to list activities by title ("ten penny game" or "achievement club"). Remember, however, only a majority of the learner objectives in each grade must have activities and assessments listed; a minority of these objectives may have no activities or assessments, or activities and assessments that are not sufficiently described.

If a curriculum guide at a grade level does not have well-described activities and assessments for a majority of the learner objectives, team members should not list the guide as having these required components at that grade level.

If activities and assessments are included in other subject areas, these should be included in the curriculum chart.

Additional information/comments should be provided whenever team members feel their observations or comments could help districts improve their written curriculum.

FULL ALIGNMENT CHECKLIST

Alignment of learner objectives to the Show-Me Standard/Curriculum Frameworks and to the activities and assessments used in the classroom is one mark of a quality curriculum. In order to give credit for "full alignment" on the curriculum chart, two levels of alignment must be present: 1) learner objectives, activities, and assessments must be closely related to each other; and, 2) a majority of the quality curriculum characteristics (including a focus on the Show-Me Standards) must often be found in the written curriculum being reviewed.
Example:

Show-Me Standard	Learner Objective	Activity	Assessment
Goal 1.8, Ma 3	Students will analyze and organize data and draw a graph that depicts the data analysis	Students will work in small groups to analyze possible groupings by common attribute (shape, color, size, etc.) with sets of varied manipulatives (blocks, buttons, M & M', etc.) and will construct a graph to show their findings	Students will work individually to analyze possible grouping within a set of manipulatives, organize the data by the chosen grouping, and construct a graph to represent the findings

Grade K:		Subject Area:	
Show-Me Standards	Learner Objective	Instructional Activity	Assessment
Sample A	☐	☐	☐
Sample B	☐	☐	☐
Grade 1:		Subject Area:	
Show-Me Standards	Learner Objective	Instructional Activity	Assessment
Sample A	☐	☐	☐
Sample B	☐	☐	☐
Grade 2:		Subject Area:	
Show-Me Standards	Learner Objective	Instructional Activity	Assessment
Sample A	☐	☐	☐
Sample B	☐	☐	☐
Grade 3:		Subject Area:	
Show-Me Standards	Learner Objective	Instructional Activity	Assessment
Sample A	☐	☐	☐
Sample B	☐	☐	☐
Grade 4:		Subject Area:	
Show-Me Standards	Learner Objective	Instructional Activity	Assessment
Sample A	☐	☐	☐
Sample B	☐	☐	☐
Grade 5:	Subject Area:		
Show-Me Standards	Learner Objective	Instructional Activity	Assessment
Sample A	☐	☐	☐
Sample B	☐	☐	☐
Grade 6:	Subject Area:		
Show-Me Standards	Learner Objective	Instructional Activity	Assessment
Sample A	☐	☐	☐
Sample B	☐	☐	☐

Grade 7:		Subject Area:	
Show-Me Standards	Learner Objective	Instructional Activity	Assessment
Sample A	☐	☐	☐
Sample B	☐	☐	☐
Grade 8:		Subject Area:	
Show-Me Standards	Learner Objective	Instructional Activity	Assessment
Sample A	☐	☐	☐
Sample B	☐	☐	☐
Grade 9:		Subject Area:	
Show-Me Standards	Learner Objective	Instructional Activity	Assessment
Sample A	☐	☐	☐
Sample B	☐	☐	☐
Grade 10:		Subject Area:	
Show-Me Standards	Learner Objective	Instructional Activity	Assessment
Sample A	☐	☐	☐
Sample B	☐	☐	☐
Grade 11:		Subject Area:	
Show-Me Standards	Learner Objective	Instructional Activity	Assessment
Sample A	☐	☐	☐
Sample B	☐	☐	☐
Grade 12:	Subject Area:		
Show-Me Standards	Learner Objective	Instructional Activity	Assessment
Sample A	☐	☐	☐
Sample B	☐	☐	☐

Check alignment in 26 or more examples (2 from each from each grade level) either chosen from the subject area guide the district indicates should be reviewed or from objectives in this guide that the district feels best illustrates alignment. If all three levels are aligned (see checks at each alignment point) in 75 percent of the 26 examples or if alignment is present in 75 percent of the times this is evaluated, full alignment is demonstrated and may be checked on the curriculum chart.

QUALITY CURRICULUM CHARACTERISTICS

Quality curriculum characteristics include the following:
[Check those that apply to the district's one selected subject area guide (see DRS6.1.4).]

	Some	Often	Always
The curriculum is focused around Missouri's Show-Me Standards.	☐	☐	☐
Higher-order thinking and problem-solving skills are included at each grade level or in each course.	☐	☐	☐
In-depth study of significant concepts is encouraged.	☐	☐	☐
What students should know and be able to do is defined through consideration of each learner objective and related activities and assessments.	☐	☐	☐
Appropriate age/developmental instructional levels are presented.	☐	☐	☐
There are strong interdisciplinary connections between subject areas.	☐	☐	☐
Vertical alignment/articulation between grades is apparent.	☐	☐	☐
The full-range of learning levels as represented in the Show-Me Standards is included.	☐	☐	☐

HOLISTIC CURRICULUM STRENGTHS AND CONCERNS

If the written curriculum is fully aligned and includes many quality curriculum components, and if all other curriculum indicators are strongly documented, strength for 6.1 may be identified. If all required components of the written curriculum are present and all curriculum indicators are well documented, a concern will not be identified solely because the curriculum in not fully aligned. It is anticipated that full alignment will be required in all subject area curriculum in the Fourth Cycle of MSIP.

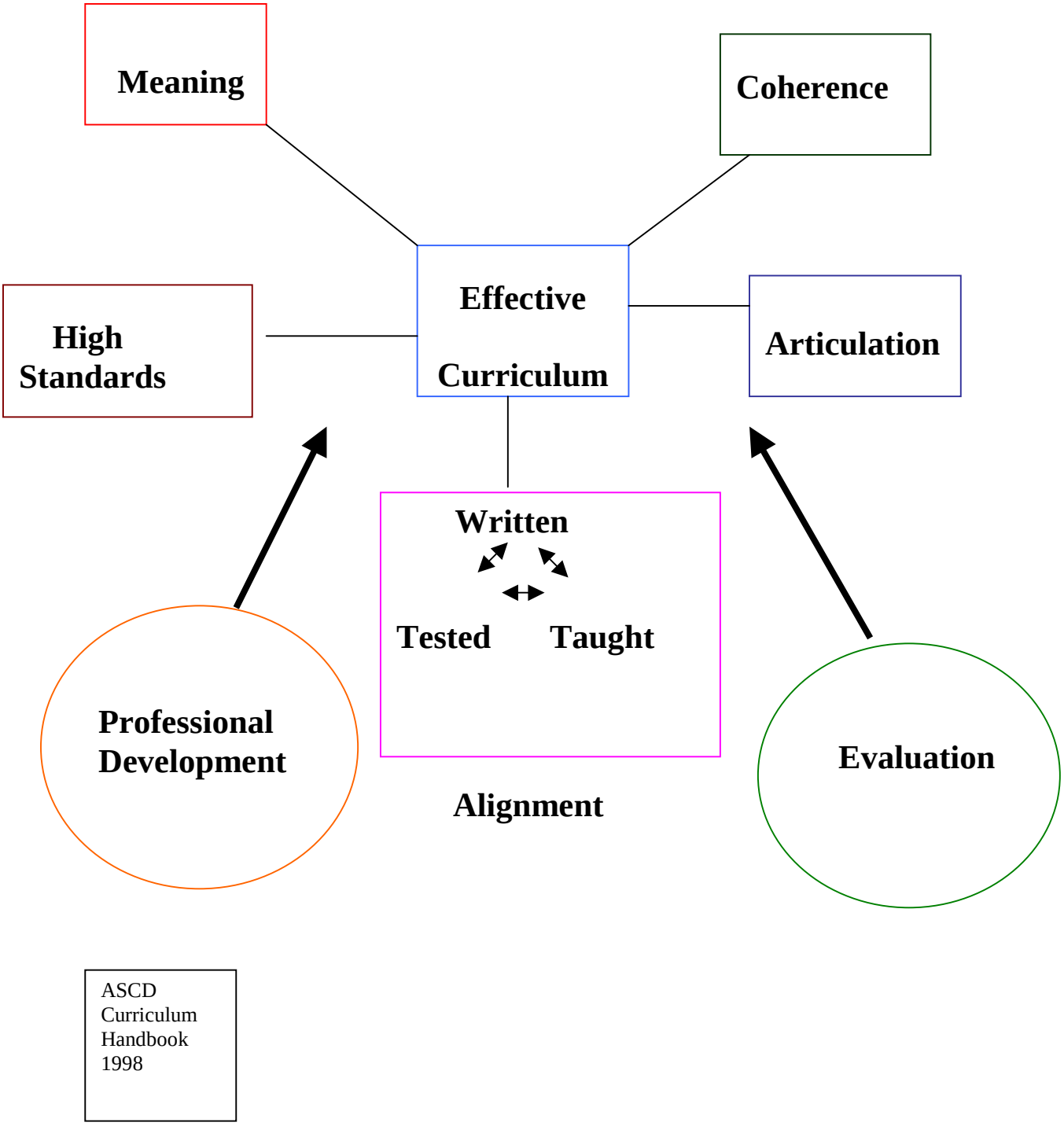
STRENGTH: A strength for the whole of Standard 6.1 would be directed at the on-going curriculum review and revision process, support for curriculum implementation, and a written curriculum that meets or exceeds all requirements.
Example Strength for 6.1: "The district has thoroughly implemented its written curriculum and provided support for the curriculum review and revision process on a continuing basis. Assessment information is used to guide curriculum change.

CONCERN: A concern should be written if the district does not meet the intent of the standard or if any required components are not present.
Example Concern for 6.1: "Interviews and advance questionnaire responses do not indicated that the written curriculum has been consistently implemented at all grade levels. Or, the written curriculum does not include all required components. Or, the district's written curriculum does not have examples of equity concepts, workplace readiness skills, research/information skills, or technology skills. Or, the district does not have a fully developed and fully implemented curriculum review and development process.

A quality curriculum also

- **Demonstrates objectives, activities, and assessments that are aligned to the Show-Me Standards**
- **Provides connections within and across the disciplines**
- **Provides a variety of formative and summative assessments**
- **Provides in-depth study of critical topics**
- **Supports continuous review based on data and current research**
- **Addresses individual learning styles**
- **Supports teachers in the development of exemplary lessons that encourage multiple ways to teach a topic**

Effective Curriculum Model



ASCD Curriculum Handbook 1998

Effective Curriculum Model

An effective curriculum:

Meaning

- Sets measurable objectives that focus on fundamental knowledge and processes
- Includes a clear, defensible rationale
- Contains explicit course descriptions
- Articulates the scope and sequence
- Provides assessments and instructional activities to measure established objectives

Coherent

- Provides opportunities at each level to build on prior knowledge and processes

Articulated

- Promotes learning at different grade levels that is appropriately sequenced and related
- Connects topics within grade levels/courses by unifying themes/concepts

High Standards for All

- Establishes a core set of challenging standards for all students
- Promotes in-depth learning
- Addresses student learning styles through a variety of instructional strategies
- Utilizes a variety of assessments to evaluate levels of student understanding

Aligned

- Exhibits strong connections between the written, taught, and the assessed curricula.
- Supports the process and content Show-Me Standards through appropriate objectives, instructional activities, instructional practices, and assessments

ASCD
Curriculum
Handbook
1998

Characteristics of Effective Curricula

- ✓ The curriculum defines what students should know and be able to do. Essential knowledge, skills, and processes are identified and curriculum documents are annotated to reflect learning requirements.
- ✓ The curriculum is focused around Missouri's Show-Me Standards, national standards, and local issues.
- ✓ The curriculum encourages in-depth study of significant concepts.
- ✓ The curriculum demonstrates the connections within and among various content areas, making strong interdisciplinary connections.
- ✓ The curriculum uses research-based knowledge to ensure appropriate age and developmental levels for each child.
- ✓ The curriculum demonstrates vertical alignment between grade levels or grade configurations.
- ✓ The curriculum demonstrates horizontal alignment within subject content or across different contents.
- ✓ The curriculum provides experiences and applications that demonstrate current and emerging career options and connects to life.
- ✓ The curriculum demonstrates the belief that all students can learn by offering a challenging curriculum, a common academic core, and expanded opportunities in all areas.
- ✓ The curriculum consistently demands higher order thinking and problem solving for all students, and provides opportunities for applications of these skills.
- ✓ The curriculum consistently addresses the learning needs of all students while maintaining high expectations and performances.
- ✓ The curriculum is systemically monitored and revised to reflect best practices and current research on student learning.
- ✓ The curriculum includes learner objectives related to equity, technology, research, and workplace readiness.

Resources:
Kentucky Academic Performance Standards
Missouri MSIP Performance Standards
Wesley Bird, Dept. Of Elementary and Secondary Education

Characteristics of Effective Instructional Strategies and Activities

- ✓ Instructional strategies/activities provide students with opportunities to connect and apply their learning to real-life experiences.

- ✓ Instructional strategies/activities support the identified objectives and assessments.

- ✓ Instructional strategies/activities consistently and intentionally address the learning needs and various learning styles of students.

- ✓ Instructional strategies/activities provide information to the teacher to adjust instruction and to meet the changing needs of a diverse student population in order to improve student academic performance.

- ✓ Instructional strategies/activities provide opportunities to complete tasks similar to those used on the state assessment (MAP).

- ✓ Instructional strategies promote thinking dispositions, metacognition, higher order thinking skills, and transfer of knowledge.

Resources:
Kentucky Academic Performance Standards
Missouri MSIP Performance Standards

Wesley Bird, Dept. Of Elementary and Secondary Education

Characteristics of an Effective Assessment Program

- ✓ Assessments are aligned with the curriculum and with Missouri's Show-Me Standards.
- ✓ Assessments provide opportunities to complete tasks similar to those used on the state assessment (MAP).
- ✓ Assessments and corresponding scoring guides are clearly defined to evaluate student work.
- ✓ Assessments should, to a great degree, focus on understanding and not just memorization.
- ✓ Assessments are given on a continuous basis to provide a variety of opportunities for teachers and students to measure learning.
- ✓ Assessments are of varying types to allow students a wide range of opportunities to demonstrate proficiency.
- ✓ Assessments include those that are authentic in nature and allow students to solve real-life problems.
- ✓ Assessments provide opportunities for students to demonstrate multiple ways of responding to a given situation.
- ✓ Assessments are specifically designed to provide meaningful feedback on student learning for instructional purposes. (Formative)
- ✓ Assessments are specifically designed to provide feedback on a student's degree of success in learning a particular objective. (Summative)
- ✓ A written assessment plan is in place that establishes procedures for use and dissemination of assessment data, procedures for administrating modified examinations, a plan for evaluating Show-Me Standards which are not assessed by the MAP, a policy for test security, provisions for staff development, and provisions for teaching test-taking skills.
- ✓ Strategies to encourage students to do their best on the MAP are in place and have been utilized.
- ✓ Assessment and dropout data is shared with district/building staff in various disaggregated formats including gender, disabilities, and (where appropriate) by race/ethnicity, LEP, or migrant status.
- ✓ Assessment data (state and local) is used to improve instructional practices and student performance.

Resources:
Kentucky Academic Performance Standards
Missouri MSIP Performance Standards
Wesley Bird, Dept. Of Elementary and Secondary Education

Demonstrates objectives, activities, and assessments that are aligned to the Show-Me Standards

What do we mean if we say that a curriculum is aligned to the Show-Me Standards?

Alignment means ……..

Draft

Training Examples for External and Internal Alignment Determination

NOTE: Examples 1 and 2 do not have internal or external alignment. The objectives appear to be aligned, but achieving the objective will not satisfy the requirements of all of the listed Show-Me Standards. The activities and assessments do not address the skills listed in the objectives or Standards.

Determine the degree of internal and external alignment for examples 1, 2, and 3.

Grade 3 Math

LEARNER OBJECTIVE	*ACTIVITY*	*ASSESSMENT*	*SHOW-ME STANDARDS*
1. Students will: analyze and organize data and present it on an appropriate graph.	**Students will:** be shown a variety of types of graphs; memorize the definitions of bar, line, and pie graphs; draw an example of each	**Students will:** write the definitions for bar, line, and pie graphs and label examples of each type	Goals 1.5, 1.8, 3.3 Ma 3, Ma 6
2. Students will: analyze and organize data and present it on an appropriate graph.	**Students will:** compare examples of line, bar and pie graphs and choose the most appropriate for the data that is to be depicted.	**Students will:** be given two types of graphs and some data, explain in writing the advantages and disadvantages of each type of graph as related to the given data.	Goals 1.5, 3.3 Ma 6
3. Students will: analyze and organize data and draw a graph that depicts the data analysis.	**Students will:** work cooperatively in small groups with a set of varied manipulatives (attribute blocks, buttons, M&M's, etc.), analyze the possible groupings by common attribute, organize the manipulatives by a single attribute (shape, color, size, etc.), and construct a graph to show their findings.	**Students will:** work individually to analyze the possible groupings within a set of manipulatives, organize the manipulatives by the chosen grouping, and construct a graph that represents the findings.	Goal 1.8 Ma 3

GOAL 1: Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.
Students will demonstrate within and integrate across all content areas the ability to

5. comprehend and evaluate written, visual and oral presentations and works
8. organize data, information and ideas into useful forms (including charts, graphs, outlines) for analysis or presentation

GOAL 3: Students in Missouri public schools will acquire the knowledge and skills to recognize and solve problems.
Students will demonstrate within and integrate across all content areas the ability to

3. develop and apply strategies based on one's own experience in preventing or solving problems

NOTE 2: Example 3 is a good example of internal and external alignment. The activity and assessment clearly state ways to achieve the objective and meet some of the requirements of the listed Show-Me Standards

Mathematics
In Mathematics, students in Missouri public schools will acquire a solid foundation which includes knowledge of

3. data analysis, probability and statistics
6. discrete mathematics (such as graph theory, counting techniques, matrices)

LEARNER OBJECTIVE	*ACTIVITY*	*ASSESSMENT*	*SHOW-ME STANDARDS*
4. Students will: Write clearly and effectively using the writing process and produce products or performances that demonstrate understanding of skills and concepts while adhering to the conventions of standard English in mechanics, usage, and grammar	**Students will:** 1. express personal opinions by writing a letter from Romeo or Juliet to Dear Abby; also write a response, then pair up to proofread each other's papers. 2. write a short descriptive composition as something other than themselves. In "Being the Thing" students identify specific works and images that translate sensory experiences and impressions into writing. 3. write a recommendation in which they suggest to Walter Mitty (from "The Secret Life of Walter Mitty") what he should do about his daydreaming. 4. choose a book and write a book-jacket blurb that makes the book appealing to readers. Students decide on the target audience and play up the features of the book. 5. write a memo explaining what members of the colony had to do to prepare for a return in "If I Forget Thee, O Earth." 6. keep a portfolio of all written work. At the end of the year, use as a resource for creating an anthology for entry in LAD Fair, a regional writing competition.	Rubric-graded written project Rubric-graded written project Rubric-graded peer assessment Teacher observation Rubric-graded written project Rubric-graded project	Process: 1.5, 2.1, 2.2 Content: CA 1, CA 2, CA 3, CA4, CA 7

NOTE: This example has several problems.

The objective is too broad. If a course objective is stated like this, there must be performance indicators, learner objectives, or some other more discrete, measurable outcomes listed.

The list of activities may or may not lead to achievement of the objective.

The generic list of assessments does not show how learning will be assessed. Therefore, internal alignment cannot be determined.

The list of Show-Me Standards cannot be aligned to objectives, activities, or assessments.

English 1

NOTE: This is a good example of combining two objectives in a unit of instruction with recommendations for activities and assessments that are aligned internally and externally.

5. Students will: 1. be able to develop a cohesive, persuasive narrative that presents one side of an identified issue and uses documentation to support the presentation. 2. use beginning/middle/ end markers in formal writing assignments	**Students will:** 1. cooperatively develop pro and con statements for specified issues (such as tax reductions stimulate the economy, vouchers will improve education, dieting is good for one's health). After selecting a statement/position, supportive data will be collected. 2. use class discussion and analysis of the "Art of Persuasion and Conversation" to identify beginning/middle/end markers	**Students will:** write an essay incorporating the following elements: beginning/middle/ end markers, persuasive/debate-style presentation on an issue, supporting documentation/testimony. The rubric will reflect equal emphasis on these three components. Possible topics include: Tax relief will/will not spur the Economy; School Vouchers will/will not improve Public Education, etc.	Process: 1.7, 1.8, 2.1,4.1 Content: CA 3, 4, 6

GOAL 1: Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.
Students will demonstrate within and integrate across all content areas the ability to
5. comprehend and evaluate written, visual and oral presentations and works
7. evaluate the accuracy of information and the reliability of its sources
8. organize data, information and ideas into useful forms (including charts, graphs, outlines) for analysis or presentation

GOAL 2: Students in Missouri public schools will acquire the knowledge and skills to communicate effectively within and beyond the classroom.
Students will demonstrate within and integrate across all content areas the ability to
1. plan and make written, oral and visual presentations for a variety of purposes and audiences
2. review and revise communications to improve accuracy and clarity

GOAL 4: Students in Missouri public schools will acquire the knowledge and skills to make decisions and act as responsible members of society.
Students will demonstrate within and integrate across all content areas the ability to
1. explain reasoning and identify information used to support decisions

Communication Arts *In Communication Arts, students in Missouri public schools will acquire a solid foundation which includes knowledge of and proficiency in*
1. speaking and writing standard English (including grammar, usage, punctuation, spelling, capitalization)
2. reading and evaluating fiction, poetry and drama
3. reading and evaluating nonfiction works and material (such as biographies, newspapers, technical manuals)
4. writing formally (such as reports, narratives, essays) and informally (such as outlines, notes)
5. comprehending and evaluating the content and artistic aspects of oral and visual presentations (such as story-telling, debates, lectures, multi-media productions)
6. participating in formal and informal presentations and discussions of issues and ideas.
7. identifying and evaluating relationships between language and culture

Provides a variety of formative and summative assessments

Roles of Assessment

Formative Assessments

Formative assessments serve the role of providing feedback to teachers to help modify and improve teaching and learning.

Examples: classroom questions, observations, drafts of papers

Summative Assessments

Summative assessments serve the role of measuring the degree of learning upon the completion of a set of learning activities.

Examples: teacher-made tests and quizzes, project presentations, end-of-year examinations

Adapted from How People Learn – National Research Council, 2000

Framework for Assessment
Content

Rich

Tasks require in-depth understanding of subject matter. Students are expected to use appropriate process skills for problem solution.

Constrained **Open**

Tasks are not dependent on prior knowledge or related experience; performance is primarily dependent on the information given in the assessment situation. Students are expected to use step-by-step, subject specific procedures.

Lean

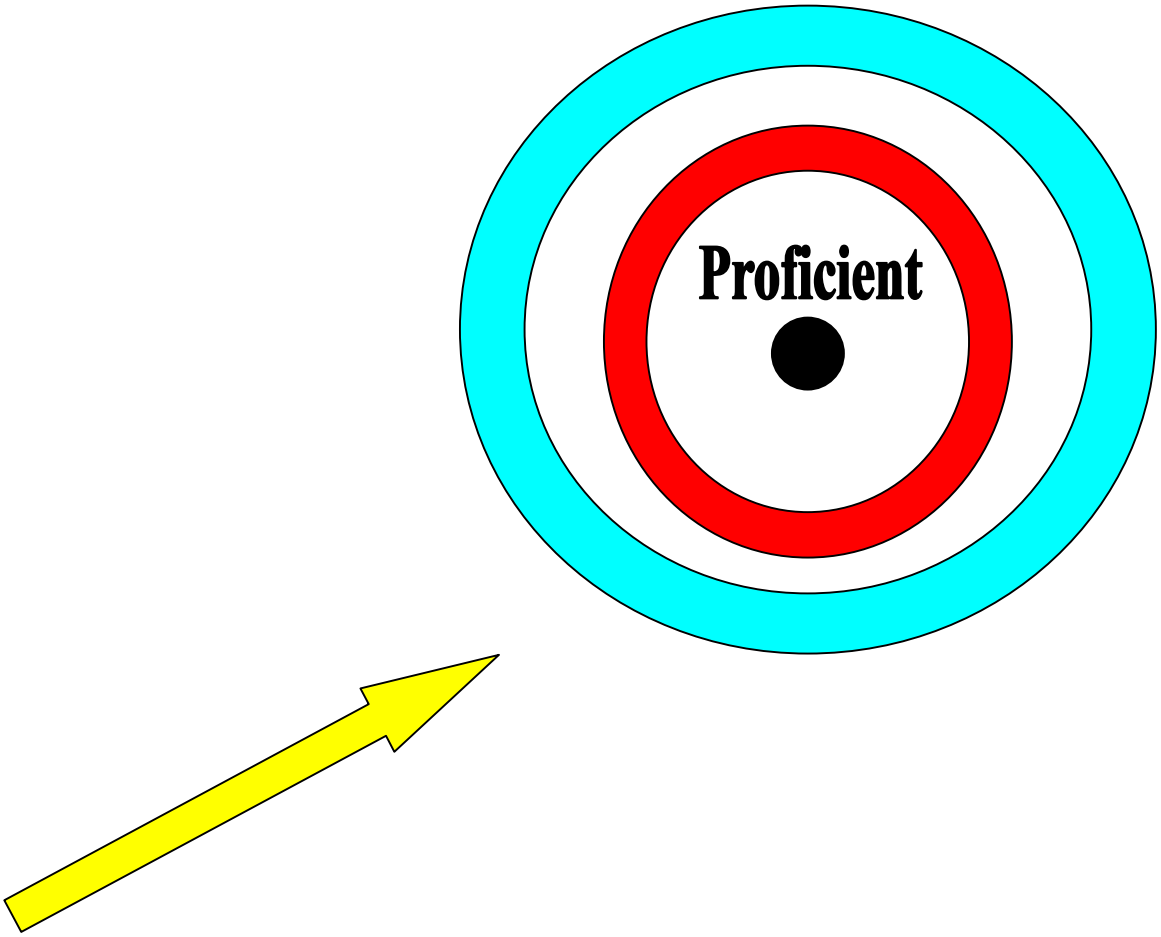
Adapted from How People Learn – National Research Council, 2000

Types of Assessment

	Multiple Choice	Short/Essay/ Constructed Response	**Performance-Based**
Task	Recognize/ Understanding	Demonstrate understanding	**Apply skills/ understanding**
Traits	+Breadth --Depth	+--Breadth +--Depth	**--Breadth +Depth**
Shows	What they don't know	What they know	**What they can do**

Grand Valley State University

Provides connections within and across the disciplines



Are your students missing the target?

Does your curriculum aim at the right target?

Begin with the end in mind.

--- Stephen Covey

The 7 Habits of Highly Effective People

$tudent Coun¢il Budget

Directions

Show all of your work and write your answers directly in this book.

10

The Miffland Elementary School Student Council needs at least $2,000 to cover its budget. The student council consists of 4 eighth-graders, 3 seventh-graders, and 3 sixth-graders. The Miffland Diner has agreed to help the student council by sponsoring a fundraising dinner. The cost of each ticket for the dinner will be $8. Only student council members will sell the tickets, and they will keep $4 from each ticket sold.

Each grade will need to raise a different percentage of the $2,000:

- 40% for eighth grade
- 35% for seventh grade
- 25% for sixth grade

Create a table on Page 13 to organize the above information. Include the following:

- the ***least*** amount of money the student council members representing each grade need to raise
- the ***minimum*** number of tickets that should be sold by each council member for each grade
- the ***total*** amount of money that should be collected

Provide the work that shows how you arrived at your answer.

Session 1

Idea web for MAP problem

Thinking Involved

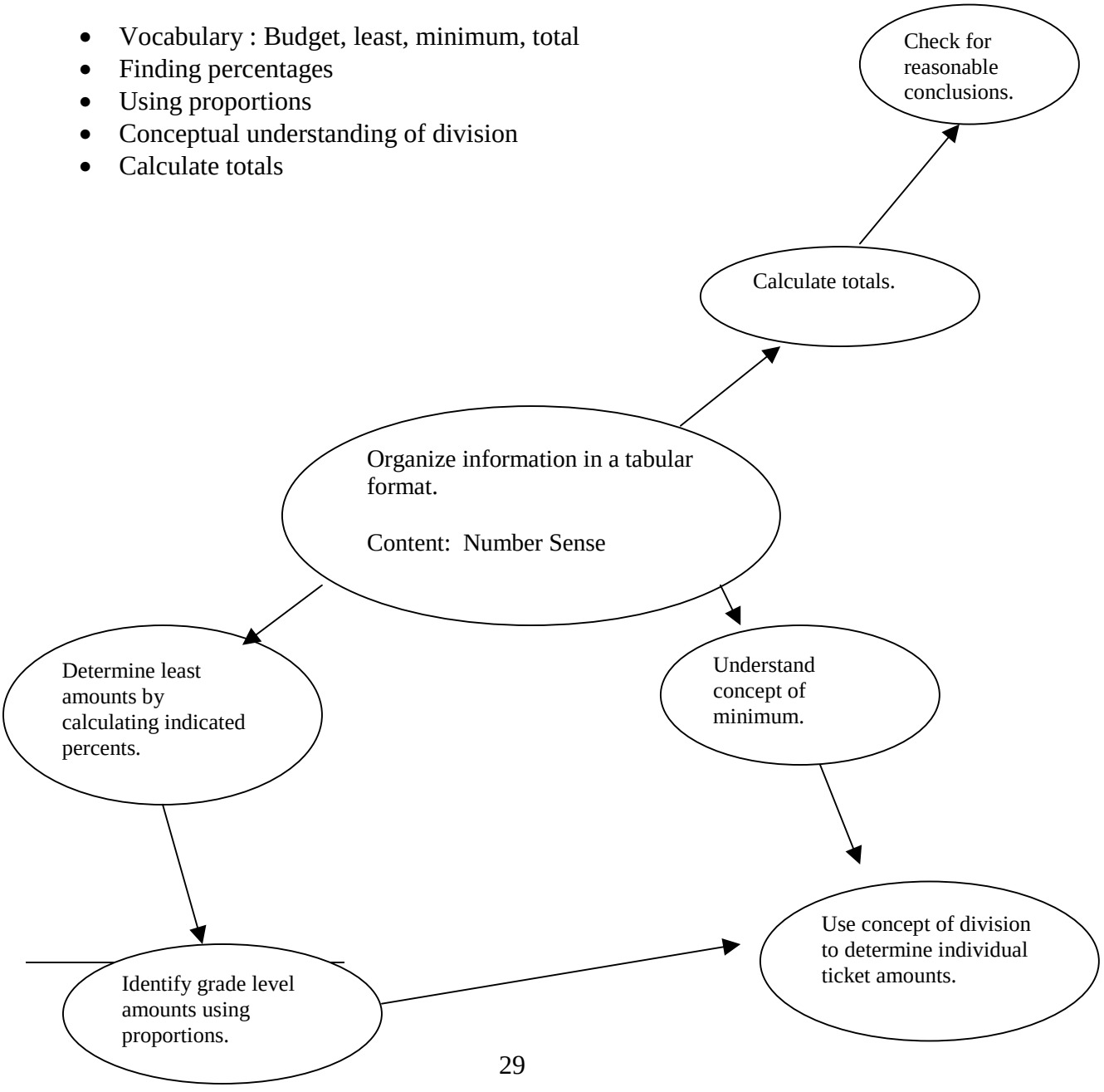
A. Metacognition[1] Students' thinking about their own thinking process

B. Strategies

- Look beyond factual knowledge Goal 3.7
- Connect areas of knowledge together Goal 1.6
- Organize information Goal 1.8
- Check for reasonable conclusions Goal 3.6

C. Concepts MA1 Number Sense

- Vocabulary : Budget, least, minimum, total
- Finding percentages
- Using proportions
- Conceptual understanding of division
- Calculate totals



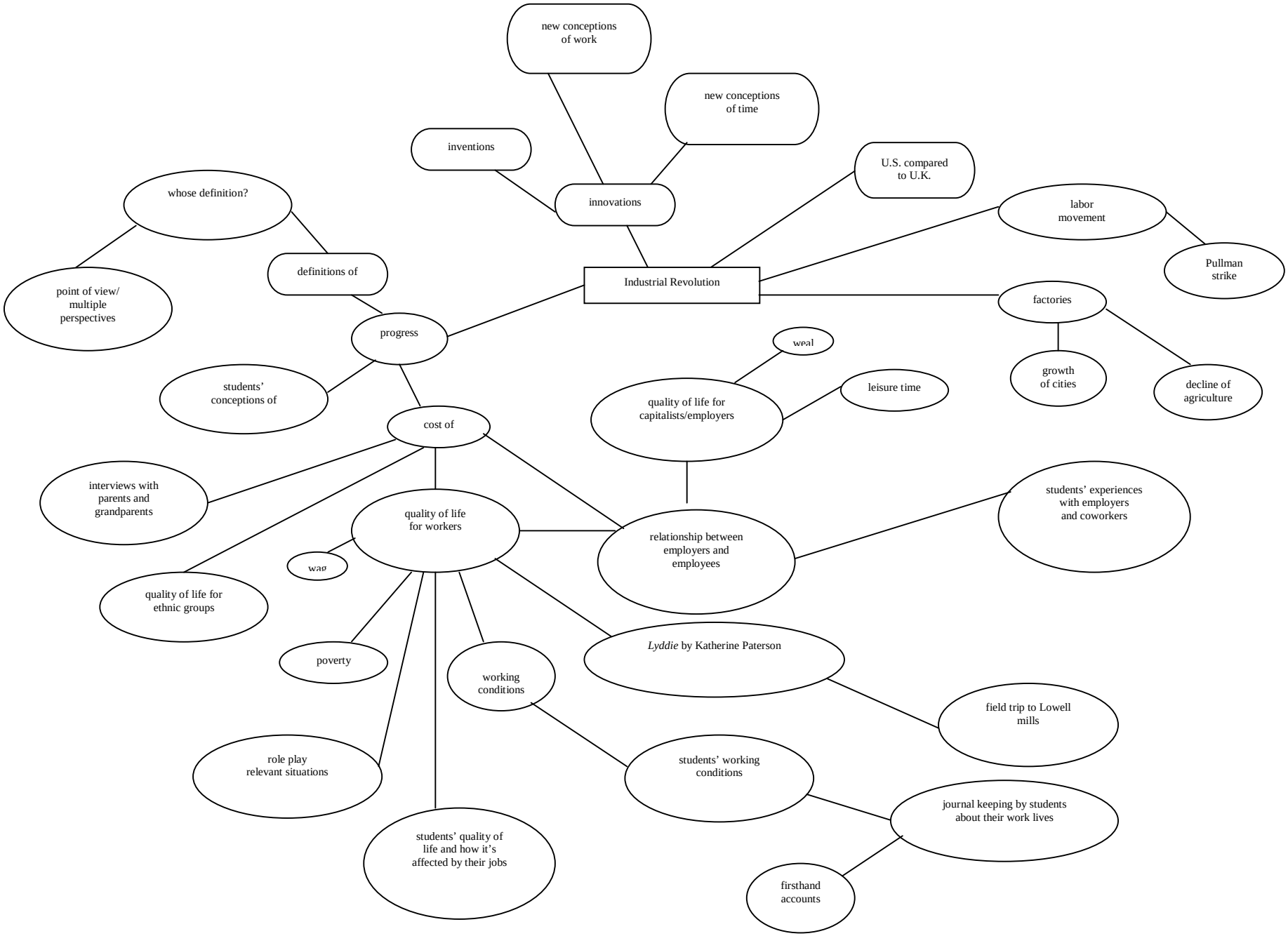
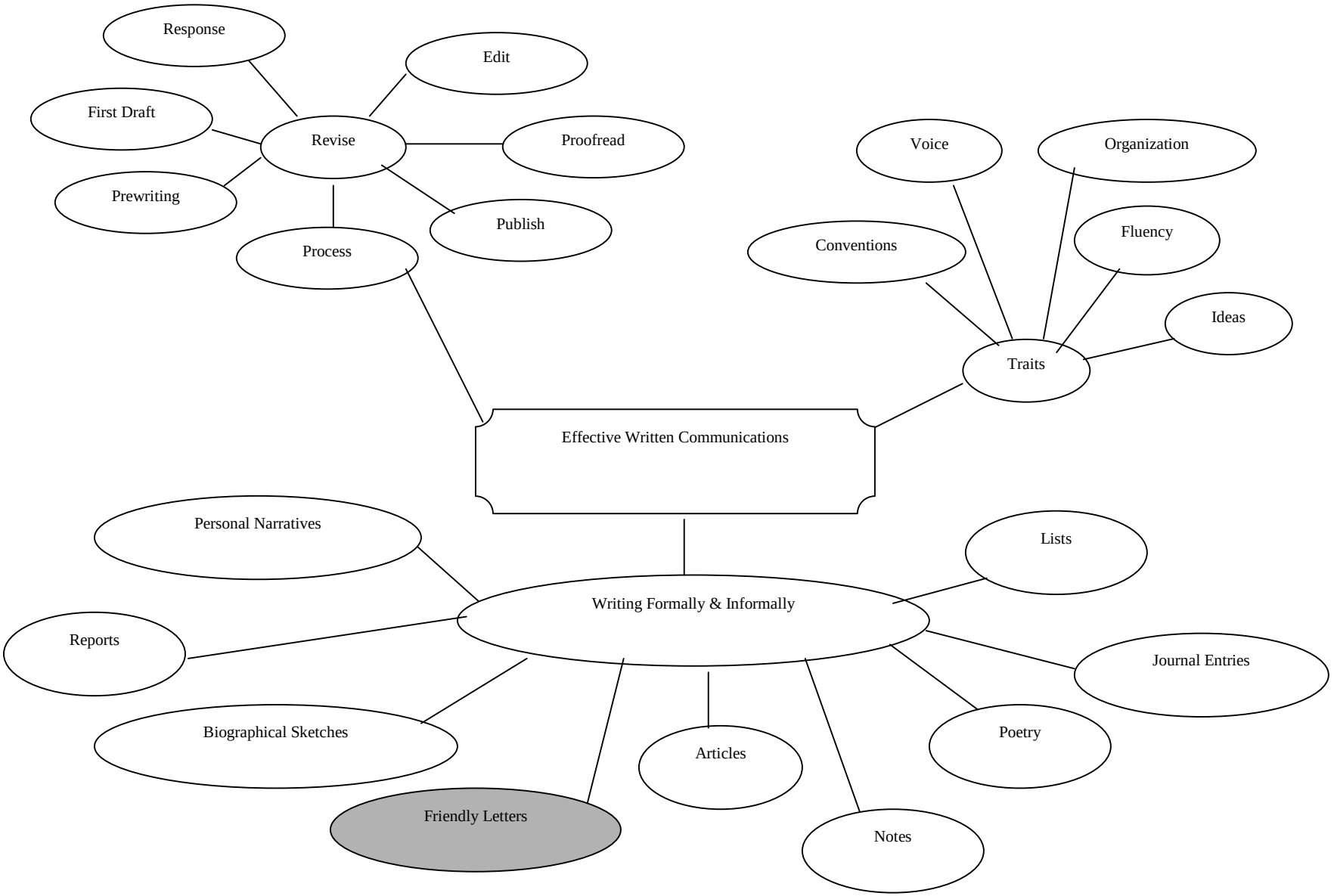
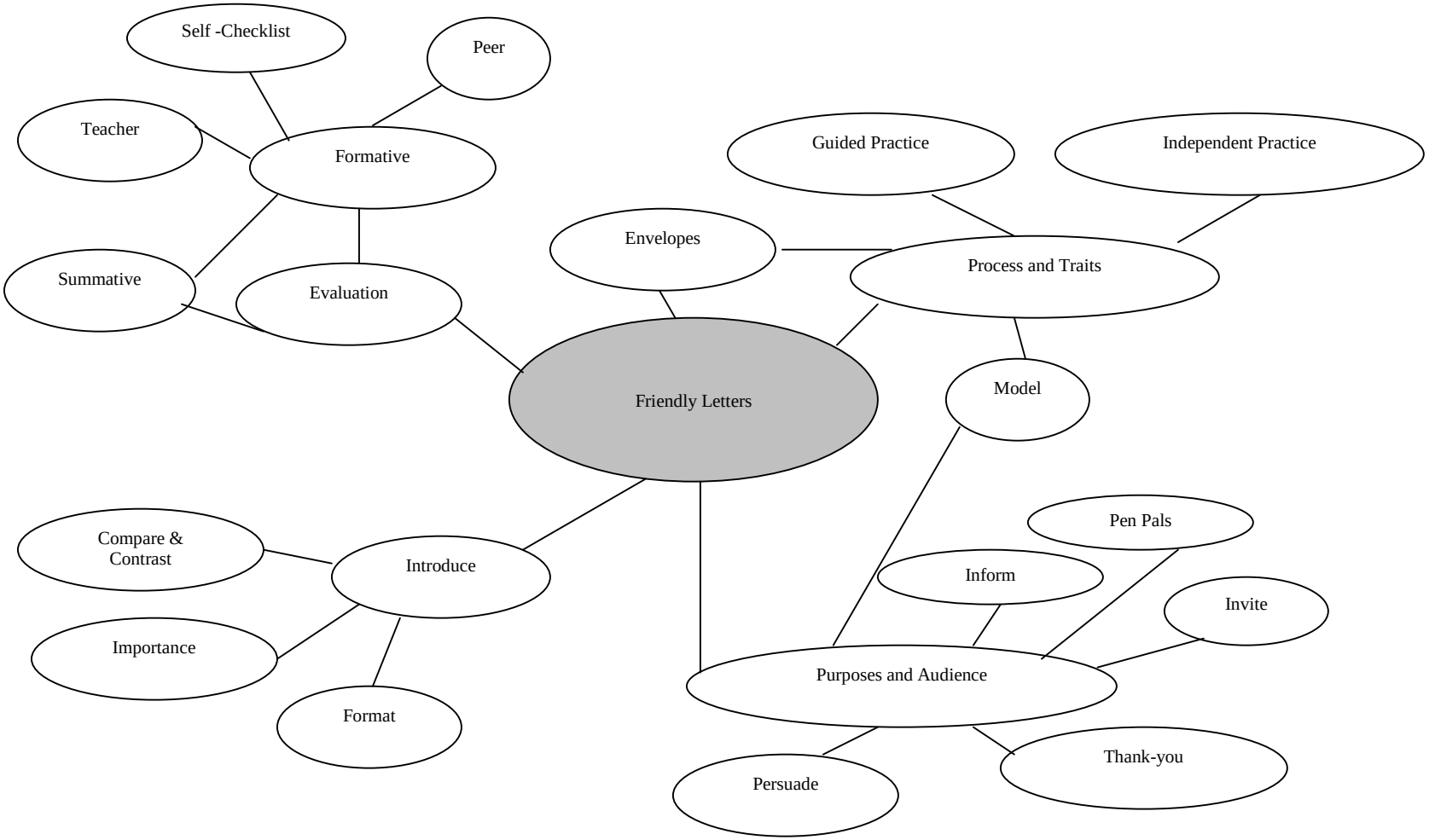


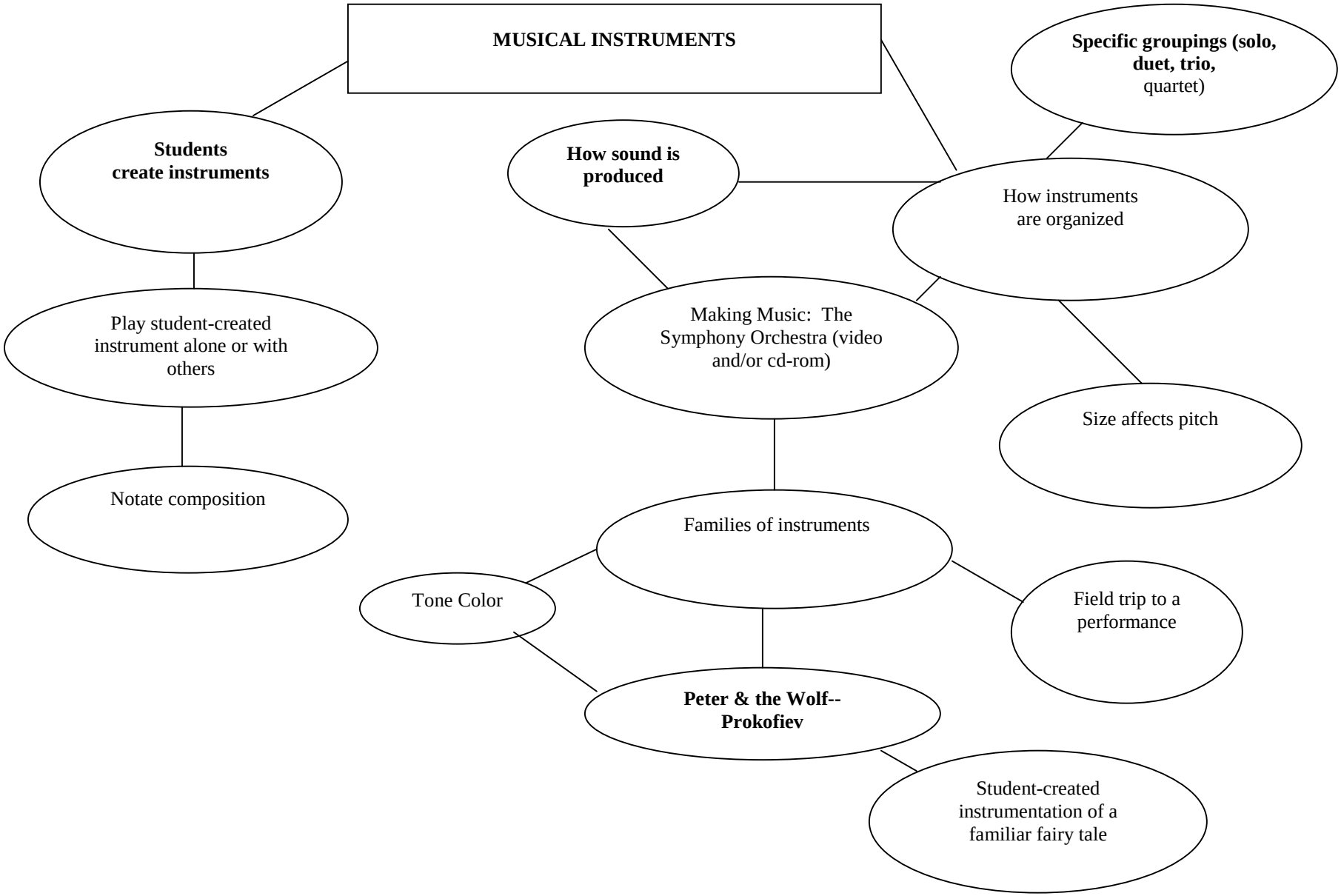
FIGURE 4.1 *An Idea Web for the Generative Topic "The Industrial Rev"*

Idea Web – Effective Written



Idea Web-Writing Friendly




MUSICAL INSTRUMENTS
Specific groupings (solo, duet, trio, quartet)
Students create instruments
How sound is produced
How instruments are organized
Play student-created instrument alone or with others
Making Music: The Symphony Orchestra (video and/or cd-rom)
Size affects pitch
Notate composition
Families of instruments
Tone Color
Field trip to a performance
Peter & the Wolf-- Prokofiev
Student-created instrumentation of a familiar fairy tale

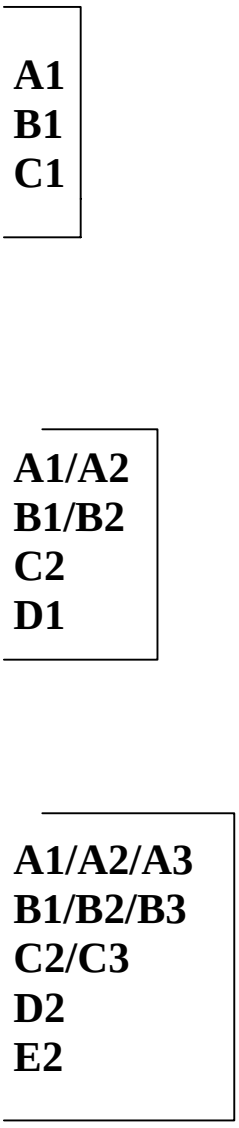
Provides in-depth study of critical topics

Addresses individual learning styles

Supports teachers in the development of exemplary lessons that encourage multiple ways to teach a topic

Curricula Structures

Spiral Model



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Deep Understanding Model

A1
A2
A3

B1
B2
B3
A3 B2
A3 B3

C1
C2
C3
C4 A2

D1
D2
D3 B2
D4

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Examples of Curricula

Example I **Clearly Not Acceptable**

MATH OBJECTIVES - GRADE 6

1. The student will identify the place value of each digit in a ten-digit whole number.
2. The student will read and write (in words) whole numbers up to ten digits.
3. The student will compare and order whole numbers up to ten digits.
4. The student will round up to lo-digit whole numbers to the nearest 10; 100, 1,000; 10,000;100,000; 1,000,000
5. The student will solve problems by finding facts in pictures (involves comparing, ordering, and rounding whole numbers).
6. The student will use the addition properties of whole numbers (commutative, associative, and identity properties).
7. The student will estimate sums and differences of whole numbers up to six digits.
8. The student will add whole numbers up to hundred thousand with regrouping (includes word problems).
9. The student will subtract whole numbers up to hundred thousand with regrouping (includes word problems).
10. The student will solve word problems requiring computation of whole numbers (addition and subtraction).
11. The student will become familiar with calculator keys for computation usage.
12. The student will use the multiplication properties of whole numbers (commutative, associative, identity, and distributive properties).
13. The student will compute multiples, find common and least common multiples of 2-3 whole numbers.
14. The student will multiply whole numbers by multiples of 10; 100; 1,000; (multiplication patterns).
15. The student will solve problems containing too much or too little information.
16. The student will estimate products of whole numbers.
17. The student will compute products of whole numbers with l-3 digit multipliers and 3- 4 digit multiplicand (includes word problems).
18. The student will solve problems requiring computation of information found in a table.
19. The student will use or make a table to solve word problems.
20. The student will relate and show that multiplication and division are inverse operations
21. The student will be introduced to variable “N to stand for a number.
22. The student will compute the quotient of whole numbers with five-digit dividends and one-digit divisors (zeros in the quotient) remainders included (includes word problems).
23. The student will compute the average (whole numbers) of up to six numbers.
24. The student will divide with multiples of ten (division patterns).
25. The student will estimate quotients when dividing by one- and two-digit divisors and dividends of three to five digits.
26. The student will compute the quotient of whole numbers with sir-digit dividends and two-

58. The student will write fractions in lowest terms using the greatest common factor method.
59. The student will write improper fractions as a mixed number or a whole number
60. The student will solve problems by following a pattern.
6 1. The student will use or look for a pattern to solve word problems.
62. The student will estimate fractional amounts.
63. The student will estimate sums and-differences of mixed numbers.
64. The student will add and subtract like fractions and mixed numbers (includes word problems).
65. The student will use the least common multiple method to find the lowest common denominator of two unlike fractions and write like/equivalent fractions.
66. The student will compare and order unlike fractions.
67. The student will and subtract unlike fractions and mixed numbers.
68. The student will subtract like and unlike mixed numbers using renaming (includes word problems).
69. The student will use logical reasoning to solve word problems.
70. The student will multiply fractions and whole numbers using the cancellation method (includes word problems).
7 1. The student will write mixed numbers as improper fractions.
72. The student will multiply fractions and mixed numbers, mixed numbers and whole numbers, and mixed numbers using the cancellation method (includes word problems).
73. Then student will solve problems using simpler problems.
74. The student will compute reciprocal of a whole number, a fraction, or a mixed number
75. The student will divide fractions and. whole numbers by proper fractions (includes word problems).
76. The student will divide mixed numbers and whole numbers (includes word problems).
77. The student will express fractions as decimals and decimals as fractions.
78. The student will use the calculator to show) relationship between fractions and decimals, number patterns, multiplication, and making predications.

Clearly Not Acceptable

Example II
(Referenced)

Geometry
Content Standard: MA2

1. Students will determine the distance between any two points. (3.4)

2. Students will use Venn diagrams to indicate the relationships between sets. (1.4)

3. Students will use computer graphics to sketch two- and three-dimensional figures. (2.7)

4. Students will locate real numbers on a number line. (1.6), (3.1)

5. Students will illustrate in drawings the geometric terms: collinear points, coplanar points, line segments. (2.1)

6. Students will use inductive reasoning to aid in problem solving. (3.5)

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Example II – b **Not acceptable**

Topic: Symmetry

Objective: In a plane, determine properties of figures that are reflective symmetrical.

Standards:

Content: MA2 – Geometry and Spatial Sense

Process: 1.6 Discover and evaluate patterns and relationships in information, ideas, and structures.

Formative assessment:

Quiz on first part of symmetry unit.

Instructional strategies or activities:

Students are given grid paper to draw figures that are reflective symmetrical.

Summative Assessment:

Chapter test on symmetry; students show drawings of figures that are reflective symmetrical.

Example III-b

Clearly Acceptable But Not Exemplary

Content Area: Communication Arts

Objective: 1.

Students will be able to develop a cohesive, persuasive narrative that presents one side of an identified issue and uses documentation/testimony to support the presentation. (Goal 2.1, Goal 1.7, Goal 1.8, Goal 4.1, CA 6)

Strategies: 1.Students will cooperatively develop pro and con statements for specified issues (such as tax reductions stimulate the economy, vouchers will improve education, dieting is good for one's health).

2. Each cooperative group will choose one of these statements/positions, and will collect supportive data.

Objective: 2.

Beginning, middle, ending markers will be used in formal writing assignments. (CA 4)

Strategies:

1.Beginning/middle/ending markers will be identified through class discussion and analysis of the "Art of Persuasion and Conversion." (See Resource List)

Assessment Description:

Students are asked to write an essay incorporating the following elements: beginning/middle/end markers, persuasive/debate-style presentation on an issue, supporting documentation/testimony. The rubric will reflect equal emphasis on these three components. Possible topics include: Tax-relief will/will not spur the Economy; School Vouchers will/will not improve Public Education; Dieting is/is not Good for One's Health.

OR

Student Assessment:

Write an essay incorporating the following elements:

1. beginning/middle/end markers
2. persuasive/debate-style presentation on one side of an issue
3. supporting documentation/testimony

Choose one side of one the following issues to present:

1. Tax-relief will/will not spur the economy.
2. School vouchers will/will not improve public education.
3. Dieting is/is not good for one's health.

Example III[1]

[1] **Wesley Bird, Dept. of Elementary and Secondary Education**

Clearly Acceptable But Not Exemplary

Topic: Symmetry

Objective: In a plane, determine properties of figures that are reflective symmetrical.

Standards:

Content: MA2 – Geometry and Spatial Sense

Process: 1.6 Discover and evaluate patterns and relationships in information, ideas, and structures

Formative assessment:

What are some examples in nature where you find reflective symmetry?

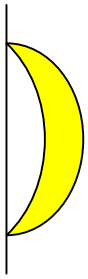
What are some characteristics of a figure that is reflective symmetrical?

Can we identify any patterns in figures that are reflective symmetrical?

Instructional strategies or activities:

Activity 1.

On a geoboard or grid paper, create a line to be used as a line of symmetry. On one side, create or draw a figure that touches the line as illustrated. On the other side of the line have students create the reflective image. Have students repeat this process with lines in different positions and with different shapes. Students should observe characteristics of the original drawing to its image.



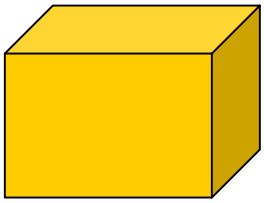
Have students illustrate the different shapes that were made and describe the line of symmetry.

Have students connect corresponding points on both sides of the lines of symmetry. Have students discuss properties or patterns that they encounter.

Activity 2.

Using a digital camera, assign students to take pictures in their environment that illustrates symmetry. Other students can review the pictures and identify symmetrical objects.

Extension: Have students look at figures of three dimensions and discuss planes of symmetry. As a project have students create concrete examples of three dimensional symmetry.



Have students look in magazines for examples of reflective symmetry in architecture. Students can make a collage of magazine pictures and their results throughout the classroom.

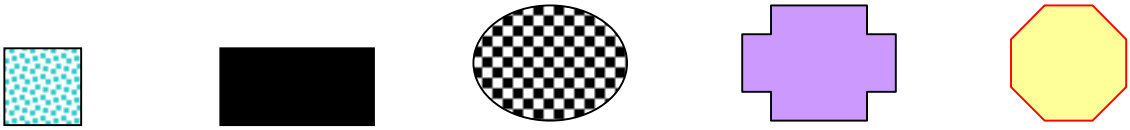
Summative assessment:

Draw figures that have only one, two, or three lines of reflective symmetry.

Draw a figure that is not reflective symmetrical.

Draw lines of reflective symmetry in the following figures. Indicate any patterns that you observe?

Group the following figures according to the number of lines of reflective symmetry that can be drawn. Identify patterns that are observed.



Example IV[1]

Exemplary

Topic: **Symmetry**

Goal: Examine the mathematical properties of different types of symmetry and investigate transformations to create symmetric design.

O1. Recognize types of symmetry. (VI.c , MA2 – Geometry and Spatial Sense)

Formative assessment:

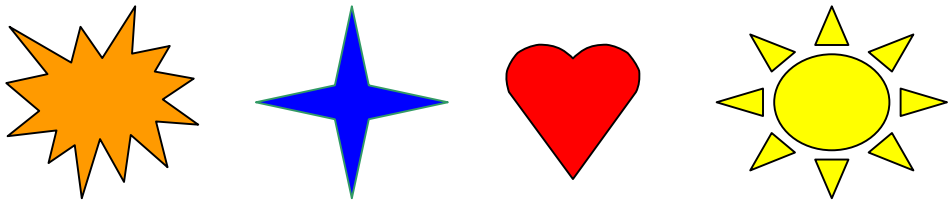
What are some examples of reflectional, rotational, and translational symmetry?

Can you draw shapes that have more than one kind of symmetry?

Can you draw a shape that has no lines of symmetry?

Why is symmetry important to someone like an architect?

Is symmetry present in the following figures? If so, which type?



Instructional strategies or activities:

In cooperative groups, use a kaleidoscope and look for examples of reflective and rotational symmetry. Describe the relationship between the number of lines of symmetry and the angle of rotation. Using one kaleidoscope design, outline on your paper the basic design element that can be used to create the entire figure. Have each group report their findings.

[1] **Adapted from Connected Mathematics, Dale Seymour Publications**

Explore the concept of reflective symmetry by having each group member fold a sheet of paper and cut a shape from the folded edge. Students should recognize the mirror image formed and the line of symmetry. Repeat the process for other shapes.

O2. Use transformations to create symmetrical designs. (VI.b, MA2 – Geometry and Spatial Sense)

Formative assessment:

What do we mean by a " line reflection?" What do we mean by "an image?"

Draw an example of a shape that is reflected across a line. How are these shapes the same? How are they different?

When you perform a translation, are any points in the plane the same after the translation?

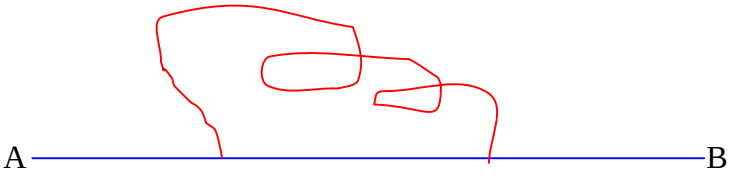
What is the relationship between a figure and its image under a rotation?

Draw a figure that has both reflectional and translational symmetry. Show why this is so.

Instructional strategies or activities:

Create a design that has translational symmetry; but no reflectional or rotational symmetry. Explain how your design meets these conditions.

Draw the image of the figure below using the reflection line AB.



Using a geoboard, create figures that illustrative reflective symmetry and identify their reflective lines.

O3. Use coordinate grids to explore transformations of figures. (VIIIb, MA4 – Patterns and Relationships)

Formative assessment:

What is a grid and how is it used?

How can we use a grid to help work with symmetrical figures?
If we consider designs made by sliding a figure along the Y-axis, how do the coordinates of the original figure compare to the figure above it? Below it?

Instructional strategies or activities:

Using a computer graphing program and coordinate grid, illustrate figures that are symmetrical with respect to the x-axis, y-axis, and the line y=x.

O4. Analyze combinations of symmetry transformations and determine whether the combining operation satisfies properties of algebra. (IX.d, MA5 – Math Systems)

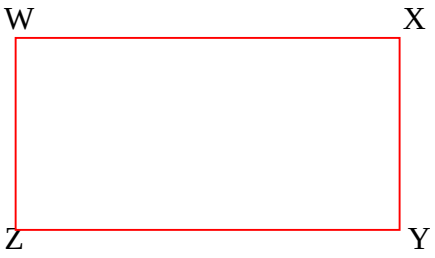
Formative assessment:

How are the commutative, identity, and inverse properties defined for real numbers when using multiplication and addition operations?

What did we discover about these properties for the symmetry transformations for a square? What is the identity element?

Instructional strategies or activities:

Rectangle WXYZ is not a square.



Describe all symmetry transformations for the rectangle. Make a table showing the results of combining pairs of symmetry transformations with the * operation.

O5. **Create a tessellation and observe patterns based on properties of symmetry. (VIII.a, MA4 – Patterns and Relationships)**

Formative assessment:

Where have you seen examples of tessellations? How would describe a tessellation?

How do we relate the concept of symmetry to tessellations?

Instructional strategies and activities:

Working in pairs, use computer drawing software to create your own tessellation design that is to be used as wallpaper. Create the design and add color to highlight patterns. Describe any types of symmetry. The design will be judged on creativity, complexity, and use of symmetrical properties.

Summative Assessment:

1. Draw figures that illustrate the following types of symmetry. Illustrate why this figure has the type of symmetry indicated.

   a) Reflective

   b) Rotational

   c) Translational

   d) Reflective and Rotational

   e) Rotational but not reflective

2. Given the design below, determine types of symmetry present. Demonstrate why these are present.

3. Points A and A' have symmetry with respect to the x-axis. A is pt. (3,2). would be the coordinates of A'?

4. Explain and/or demonstrate how the reflective image of a symmetric figure differs from a reflective image on a nonsymmetrical figure.

5. Compare the operation tables for the square with the patterns in the operational table for an equilateral triangle. In what ways are the similar? In what ways are they different? What algebraic properties are present using these operations?

6. Draw a portion of a tessellation. Discuss the properties of tessellations in relationship to symmetry.

Resources Needed:

Connected Mathematics – Geometry
Grid Paper
Geoboard
Paper for cutting
Various geometric shapes
Computer drawing software
Tessellation wallpaper
Compass, protractor

Excerpts from a Hypothetical Aligned Social Studies Curriculum

Warren Solomon
Social Studies Curriculum Consultant

This booklet presents excerpts from a purely hypothetical aligned curriculum in the subject area of social studies.[2] The Missouri School Improvement Program (MSIP) requires certain characteristics shown in the excerpts on the next few pages, whereas other characteristics shown in the excerpts are simply matters of the author's preferences.

What MSIP requires. MSIP Process Standard 6.1 of Cycle 3 requires—among other things—that a school district's curriculum must include specific, measurable learner objectives for each course at each grade level and that those objectives must be aligned to the district's goals for graduates and Missouri's Show-Me Standards. In addition, for a majority of those objectives districts must provide instructional activities and specific assessments (including performance-based assessments). The excerpts that follow illustrate those features of an aligned curriculum for social studies courses for three grade levels (4, 8, and 10 or 11), showing objectives, assessments, and activities that are directly related to and supportive of each other.

Characteristics of the examples here that go beyond what MSIP requires. The examples that follow have certain characteristics that are not specifically required by MSIP. Those non-required characteristics are as follows:

1. The objectives shown here are grouped with content objectives accompanied by process objectives. This was done along line with the assumption that content is learned best when taught in conjunction with process objectives, which indicate how the content is to be learned and integrated into the student's existing structures of knowledge and how the content is to be used.

2. The activities and assessments shown here involve major projects that cut across specific lessons and units. This was done along line with the assumption that curriculum guides at the district level might best focus on major objectives, major activities, and major assessments, leaving the other objectives, activities, and assessments to individual teachers.

[2] A real curriculum of a school district would include more objectives for each grade level and would include objectives and accompanying materials for all grade levels and courses. The curriculum would also include other elements these excerpts do not show: subject area and course rationales, course descriptions, and evidence that objectives have been articulated by grade-level and course sequence.

Hypothetical Example of Curriculum Alignment in Social Studies

Grade 4[*]

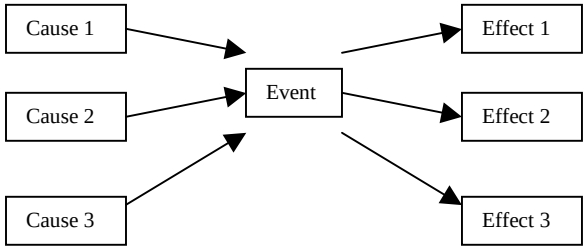
Objectives	Assessment	Instructional Strategies or Activity
In this case three objectives are to be addressed in conjunction with each other. 1. Identify individuals who played major roles in the history of Missouri, describe what they accomplished, and justify their importance in Missouri's history. (Show-Me Social Studies Standard 2 2. Identify questions and conduct research to answer those questions. (Show-Me Standards 1.1 and 1.2) 3. Communicate ideas clearly to others. (Show-Me Standard 2.1)	A. Student research skills pertinent to Objective 2 that are taught explicitly will be assessed during Phase 6 of the activity using a checklist developed by the teacher and library media specialist (LMS) with student input. The teacher or LMS will observe students and use the checklist as students carry out their research in the LMC. An acceptable level of performance would be 3 points, assuming the checklist has a 4-point scale. B. Assessments focused on Objectives 1 and 3 would be based on assessment of the students' reports/presentations, as carried out in Phase 8 of the activity. The reports/presentations address Social Studies Standard 2 and Show-Me Process Standard 2.1. These would be evaluated using rubrics developed by the teacher, with student input. The evaluation criteria will include at the minimum: 1) The use of three or more relevant sources;	Before beginning this activity, plan with the library media specialist (LMS) to determine what Library Media Center (LMC) print, non-print, electronic, and human resources are available to support the activity and plan how the LMC and LMS will be used. Schedule whole-class and small-group time in the LMC. This activity has eight phases, for which it will be important to estimate realistically the time needed for each phase cited below: 1) **Structuring the activity**. Give students an overview of the entire activity, with supporting handouts, explaining that they will form into groups of three, choose a man or woman who played an important role in Missouri history, conduct research on the person, and make a presentation for classmates about the person. Inform students that their presentations must address the following questions: • When and where did the person live? • What was something that the person tried to accomplish? • What challenges did the person face? • How did the person address the challenges? • How did that person make a difference in the lives of people living in his or her time and to the lives of people living at later times?

[*] The example shown here is hypothetical, focused on an objective related to Missouri history, which is emphasized in many school districts in grade 4. A local Missouri school district may have a different course emphasis and may choose to use a different objective from that shown here. Only a small cluster of objectives is shown here to provide an example of how objectives may be addressed in an aligned curriculum. The number of such objectives to be listed will vary with the specific course and the decisions of local school district curriculum committees. In addition, the format the district chooses to use may be different from that shown here.

	2) The presentation of ideas relevant to the six questions identified in Phase 1 of the activity; 3) The persuasiveness of the presentation in showing that the person they selected did indeed play an important role in Missouri history; 4) The quality of presentation from the perspectives of creativity, organization, and communication; and 5) The full, appropriate participation of all members of the team. A four-point scale will be used for each of the criteria, ranging from "1. The criterion was not addressed" to "4. The criterion was addressed in a highly effective manner." The total points possible that students may earn would be 24 points (4 points on all 6 criteria). Acceptable performance would be 18 or more points. **C. Students mastery of Objective 1 could also be evaluated using objective test items pertaining to people students will have studied or about whom their classmates reported in Phase 8 of the activity cited in the column to the right of this one.** Here is an example of a constructed-response item students might be asked pertaining to this objective:	• What did the team find to be admirable about the person about whom they chose to report? 2) **Getting started.** Form students into teams of three. 3) **Choosing the topic for the research/presentation.** Present students with a list of people to research and brainstorm what they already know about people on the list and about others from Missouri history using a T-chart, with person's name to the left and what they know about the person to the right. Then, engage students in identifying criteria for determining which people should be included among those who have played major roles in Missouri's history. Each team selects one person who fits the criteria. 4) **Deciding on the type of presentation**. To help each team decide how it will present its findings, lead the class in a brainstorming activity to determine ways of making their presentations (posters, dramatizations, comic books, narrative booklets, etc.). Discuss availability of resources and equipment in the building needed for some types of presentations. Each team will determine its final product and what it will need to do to make its presentation interesting and memorable to classmates and perhaps others. 5) **Setting standards.** Invite students to propose criteria for quality presentations, which the teacher will use in designing the assessment rubric. One criterion is that the presentation must address the questions identified in Phase 1 of the activity. The teacher will help students understand and apply the criteria to the construction and evaluation of their own presentations 6) **Conducting the research.** Students, with instructional assistance and coaching from the teacher and LMS,

		conduct the research using the rubric determined in Phase 5 to assist them in the creation of the final product.
	Imagine you are writing brief one-sentence statements on the tombstones of various people who played important roles in Missouri history. Your sentence should indicate why each person was important to the history of Missouri. What would you write on the tombstones of these people? • Auguste Chouteau • Meriwether Lewis • Saint Rose Philippine Duchesne • George Caleb Bingham Student responses will be graded on the basis of their accuracy. Satisfactory performance would be at the level of 80% or more.	7) **Planning the presentations.** Students, with advice and coaching from the teacher and peers, make plans on the details of how to present their findings to their classmates (and perhaps other people, such as students from other classes and parents). 8) **Making the presentations.** Students present findings to the class in the way that was originally chosen in Phase 4 of this activity and addressing the criteria set in Phase 5 of this activity.

Grade 8 (Course: United States History, Pre-Columbus through Reconstruction)*

Objectives	Assessment	Instructional Strategies or Activity
In this case four objectives are to be addressed in conjunction with each other. 1. Identify cause-effect-relationships with regard to major historical events studied. (Social Studies Show-Me Standard 2) 2. Locate, comprehend, and evaluate sources relevant to one or more specific historical events. (Show-Me Standards 1.4, 1.5, and 1.7) 3. Discover and evaluate cause-effect patterns pertaining to historical events. (Show-Me Standard 1.6) 4. Plan and make visual and oral presenta- tions for audiences of peers (Show-Me Standard 1.7)	A. The activity described in the next column has students developing flow charts, which will be shared with classmates and defended. The flow charts will be evaluated using rubrics developed by the teacher with student input. The evaluation criteria will include at the minimum: (1) historical accuracy of information presented (Objectives 1 and 3); (2) documentation of the cause-effect relationships presented (Objective 2); (3) quality of the flow chart as a piece of visual communication (Objective 4); and (4) quality of the oral defense of the flow chart (Objective 4). The teacher will develop a 16-point scoring rubric based on the above criteria and will share the rubric with students prior to their completing their flow charts. (The rationale for the 16-point scale is that each of the above criteria would have a scale of 0 to 4 points, with 3 points representing satisfactory performance, 4 points representing outstanding performance, 2 points representing nearing satisfactory performance, 1 point representing fully inadequate performance, and 0	This activity may be used in conjunction any of the major historical events studied in U.S. history. **Planning the activity.** Prior to carrying out the activity, the teacher should meet with the Library Media Specialist (LMS) to determine what Library Media Center (LMC) resources may be used in support of this activity and to schedule class time to use the LMC. **Structuring the activity.** The teacher will provide students with a flow-chart graphical organizer format, such as the following:  The task for the students would be to take an event, such as the French and Indian War, American Revolution, Louisiana Purchase, Civil War, or Industrial Revolution, and to identify causal and consequential factors of the event. The teacher would help students to see that the chart is

* The example shown here is hypothetical. A local Missouri school district may have a different course offered at this grade and may choose to use a different objective from that shown here for this course. Only one small cluster of objectives is shown here to provide an example of how objectives may be addressed in an aligned curriculum. The number of such objectives to be listed will vary with the specific course and the decisions of local school district curriculum committees. In addition, the format the district chooses to use may be different from that shown here.

	points representing the case where a student does not try to answer the question.) Students will use the rubric in .	presented simplistically as shown above, that in fact one cause may have its causes, and one effect may have other effects. The teacher will also clarify with students the meaning of the terms "cause" and "effect."
	evaluating their own flow charts and performances and in evaluating each other's flow charts and performances. Acceptable performance will be 12 or more points. B. Student mastery of the objective could also be assessed by evaluating how well they respond to questions about cause-effect relationships. Following is an example of such a question, which has three sub-questions: 1. Explain what is meant by a "cause" of some event. 2. Identify two causes of the American Revolution. (Objectives 1 and 3) 3. Present evidence with sources cited that the two factors you identified as causes of the American Revolution were actually causes of the revolution. (Objective 2) This question may be used in an open-book examination in a setting, such as the LMC, where students have access to a variety of resources. Student responses will be evaluated using a scoring guide the teacher develops. Satisfactory performance earns 3 points on a 4-point scale. (Outstanding performance would earn 4 points; nearing satisfactory performance would earn 2 points; fully unsatisfactory would earn 1 point; answer not attempted would earn 0 points.)	**Selecting topics.** Each student is to identify an event that will be the focus of his or her study. **Finding and using sources.** In the LMC, with help from the teacher and LMS, students will find sources pertaining to their topics and will use those sources to begin developing their flow charts. Students will be reminded that they are to document each cause-effect relationship they present in their flow charts using relevant, reliable sources and will be helped to keep records of their sources and of the evidence they provide. **Drafting the flow charts.** After students make first-draft versions of their flow charts, they will share them with peers for constructive feedback and suggestions. **Presenting findings.** Students will present their flow charts to their classmates and to other guests invited to class in oral presentations using transparencies. They will also defend the details of their flow charts when answering questions from the audience.

Grade 10 or 11 (Course: Modern World History)*

Objectives	Assessment	Instructional Strategies or Activity
In this case four objectives are to be addressed in conjunction with each other. 1. Locate, analyze, and evaluate primary sources relevant to a given historical topic. (Show-Me Standards 1.4; 1.7) 2. Conduct productive research pertinent to a given historical topic. (The research will be considered productive if the students' performance is determined to be satisfactory or better given the rubric shown in the next column.) (Show-Me Standards 1.1; 1.2; 1.6) 3. Demonstrate in-depth understanding of a Given historical topic of significance to world history. (Social Studies Show-Me Standard 2).	A. This assessment focuses on a specific project, where students construct booklets, each of which is focused on a major historical event or development. The specifics of the booklets may be found in the column to the right. The booklets will be evaluated in the light of the objectives using a rubric developed by the teacher with student input. The rubric focuses on the following criteria: 1. Relevance and importance of the primary sources for the specific historical topic. (Objective 1) 2. Questions in the booklets being useful as tools for the analysis of the primary sources. (Objective 2) 3. Historical accuracy of the information presented in the booklet with appropriate documentation. (Objective 3) 4. Quality of the communication (appropriateness for audience and school library, organization, grammatical mechanics, spelling, etc.). (Objective 4) A four-point scale is used to assess the booklets for each criterion. Satisfactory performance is 12 or more points on a 16-point scale.	This activity may be used in conjunction any of the major historical events or developments studied in modern world history. **Planning the activity.** Prior to carrying out the activity, the teacher should meet with the Library Media Specialist (LMS) to determine what Library Media Center (LMC) resources may be used in support of this activity and to schedule class time to use the LMC. The activity has four phases: (1) Select a major event. (2) Find five primary sources related to the event. (3) Develop sets of questions that may be used in the evaluation of each source. (4) Present findings in booklet form to be read by classmates and placed in the school library. **Structuring the activity.** At the beginning of the activity, the teacher provides an overview of the four phases of the research-project activity, which are as follows: 1) Students each select a major event or development from world history.

* The example shown here is hypothetical. A local Missouri school district may have a different course offered at this grade and may choose to use a different objective from that shown here for this level. Only a small cluster of objectives is shown here to provide an example of how objectives may be addressed in an aligned curriculum. The number of such objectives to be listed will vary with the specific course and the decisions of local school district curriculum committees. In addition, the format the district chooses to use may be different from that shown here.

4. Communicate findings to classmates in the form of a print publication. (Show-Me Standards 2.1; 2.2)	(The rationale for the 16-point scale is that each of the above criteria would have a scale of 0 to 4 points, with 3 points representing satisfactory performance, 4 points representing outstanding performance, 2 points representing nearing satisfactory performance, 1 point representing fully inadequate performance, and 0 points representing the case where a student does not try to answer the question.) B. That portion of Objective 1 pertaining to the analysis of primary sources may be evaluated in specific units using such primary sources as political cartoons, excerpts from laws or court decisions, or reproductions of works of art pertinent to the historical era being studied. Students could be shown a source and asked one or more specific questions about it. Examples of such questions are: 1) What point of view is reflected in the specific source? 2) What insight into the era or topic we are studying (e.g., the Holocaust, the New Deal, the lives of Egyptians, etc.) can you learn from your examination of the specific source? 3) Is the source one that is objective and credible or one that is biased and unreliable? Justify your answer to the question. To determine whether the student has mastery of the objective, student responses to such questions for a variety of sources will be necessary. Each question will have a scoring guide, and student performance by the end of the semester must reach an average of at least 3 points on a 4-point scale.	2) Students each find five primary sources relevant to and important with regard to the event or development. 3) Students develop sets of guiding questions that may be used in the evaluation and use of each source. 4) Students present their findings in booklet form to be read by classmates and placed in the school library. As the activity progresses, the teacher may use check-for-understanding quizzes and observe students as they work to coach them as needed. **Phase 1:** Given a list of possible topics, each student selects a historical topic pertinent to the specific course and of interest to the student. **Phase 2:** After learning the meaning of the term "primary source" by comparing primary sources to secondary sources and learning how to find primary sources in the library and on the Internet, each student is to find many primary sources that have the potential to shed light on the historical topic. Once, the large set of primary sources is selected, the students each select five of those sources, which they believe has special relevance to the topic and which is of importance for gaining an insight into the topic. **Phase 3:** Students are take each primary source and develop a set of specific questions to "interrogate the sources" in an effort to help others judge their relevance to the topic, their reliability, and their significance. Students carry out this activity for their sources after the teacher provides instruction by having the entire class develop a set of such questions for one or two primary sources the teacher brings to the class.

		Phase 4: Students prepare booklets on their topic with contents organized around the following questions: 1) What historical topic does the booklet address? 2) How may the topic be described briefly using "the 5 W's and How" (Who? What? When? Where? Why? And How?)? For this part of the report the student is to present a brief narrative of the topic, perhaps supported by a timeline. 3) What primary sources may be used to help shed light on the topic (i.e., to make the topic meaningful to a person unfamiliar to it)? 4) What questions should be used to analyze each primary source (i.e., to decide whether the source is credible, relevant to the topic, and of importance)? (The student is not to conduct the actual analysis. In this case, he or she is to present a set of important questions for readers to use for such an analysis. The goal is to develop a booklet that will help readers think critically about each of the sources and to use the sources to learn about the topic.) 5) In conclusion, why is the topic important historically and how the primary sources shed light on its importance?

Rationale

A rational should be written for each course at high school and for at least grade intervals at the elementary level for each content area.

The rationale answers the question, “Why is this subject being taught?”

Course Descriptions

A description should be written for each course at the high school and for at least grade interval at the elementary level for each content area.

The description answers the question, “ What topics will be covered in this course?”

Curriculum Mapping

Curriculum mapping is a process used by districts and schools to examine and evaluate the alignment of the written, taught and assessed curricula. The primary function is to develop a clear picture of what is happening in each classroom. Using curriculum mapping, a district or school will generate classroom data about scope and sequence, what topics are covered, time allocations, and what topics are actually taught. A curriculum map is compared to the expected vision.

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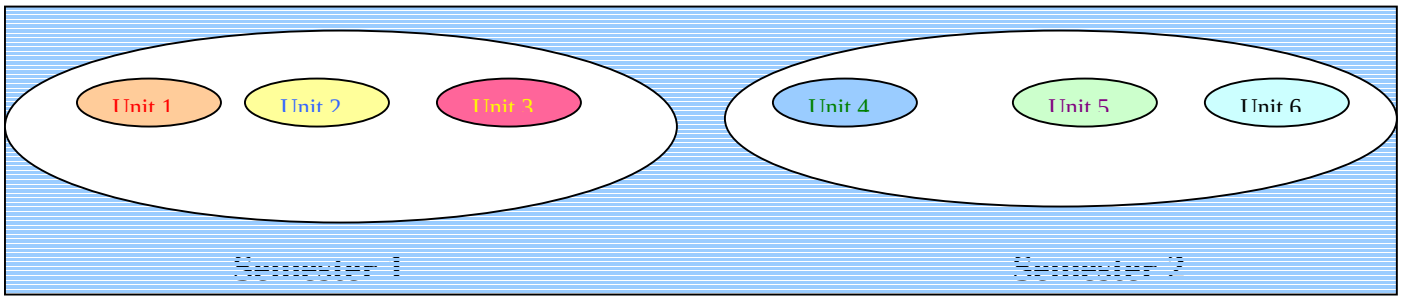
Supports Continuous Review

Review curriculum on a continuous basis.

- **Use data from state and local assessments**
- **Analyze student work to determine any weaknesses in instruction or curriculum.**
- **Gather information from teacher observations.**
- **Test strength of alignment between objectives, instructional strategies, and assessments**
- **Review beyond the objective level looking at units, semesters, and across the year.**

Curriculum review should take place at several levels.

1. **Objective level**
2. **Level of curriculum units**
3. **Level of semester-long and yearlong sequence of units.**



Year

Results of Quick Fixes